

pixels **102** may be reset in preparation to be programmed for a subsequent frame of image data.

**[0061]** Returning to FIG. **10** and the discussion of the process **260**, at process block **274**, the amount of flickering (e.g., flicker level) at each of the regions **150** may be measured using the probe **206**. For example, as described above, the probe **206** may be a camera that can be used to record image data for various portions (e.g., regions **150**) of the electronic display **18**. The flicker meter **208** may analyze the data collected by the probe **206** and indicate an amount of flicker (e.g., an amount in decibels).

**[0062]** At decision block **276**, the computing system **210** may determine whether each of the measured flickers associated with the regions **150** is less than a flicker perceptibility threshold, which may be a pre-defined value that is stored in memory or storage of the computing system **210**. More specifically, the flicker perceptibility threshold may be a value indicative of a point at which the human eye can perceive flickering. When the computing system **210** determines that one or more of the measured flickers associated with the regions exceeds the flicker perceptibility threshold, at process block **278**, the intra-frame interpolation parameters may be adjusted, the number of segments may be modified, or both the intra-frame interpolation parameters and the number of segments may be changed. For example, the optimal Vcom values associated with the regions **150**, rows **152**, or both may be modified. As another example, the type of interpolation may be modified (e.g., switching from linear interpolation to spline interpolation). The process **260** may return to process block **270** at which the intra-frame interpolation IC may be programmed with the adjusted intra-frame interpolation parameters (which may include a modified number of segments utilized when performing the intra-frame interpolation).

**[0063]** However, when it is determined at decision block **276** that each measured flicker is less than the flicker perceptibility threshold, the process **260** may end, as indicated by process block **280**. In other words, the Vcom values for the lines of pixels may be considered to be calibrated.

**[0064]** Moreover, it should be noted that while the present disclosure generally describes Vcom being provided by one source (e.g., a voltage source associated with the intra-frame interpolation IC **140**), in other embodiments, multiple Vcom voltage sources may be utilized. That is, the process **260** may be performed when more than one Vcom source is used. For example, the regions **150** may be modified to account for the multiple voltage sources. In other words, for example, more or fewer regions **150** may be used, the regions **150** may be located in different parts of the display **18**, or both. Accordingly, it should be appreciated that the presently disclosed techniques may be utilized when there are multiple Vcom sources.

**[0065]** Furthermore, while the presently disclosed techniques may be utilized to determine and provide line-specific Vcom values, it should be noted that these techniques may also be utilized to determine and provide Vcom voltages for more than one line. In other words, intra-frame interpolation may be performed to determine an optimal Vcom for a portion of the electronic display **18**, such as a portion of the electronic display **18** that includes two or more lines of pixels **102**. In such as case, the optimal Vcom may be determined, for example, by determining an average value of the line-specific Vcom values for the lines of pixels **102** included in the portion of the electronic display **18**. In

other words, intra-frame interpolation may be utilized to provide area-specific Vcom voltage values to an area of the display that includes, for example, a single line of pixels **102** (e.g., associated with one common electrode **112**) or two or more lines of pixels **102** (e.g., associated with one or more common electrodes **112**).

**[0066]** The techniques discussed herein enable electronic devices to provide line-specific Vcoms to lines of pixels included in electronic displays. For instance, an intra-frame interpolation IC **140** may cause line-specific Vcoms to be supplied to lines of pixels **102** included in an electronic display **18** based at least in part on optimal Vcom values associated with rows **152** of regions **150** of the electronic display **18**. Providing line-specific Vcoms to the lines of pixels **102** of the electronic display **18** may reduce or eliminate the occurrence of flickering that is perceptible to the human eye. For instance, by providing line-specific Vcoms, there may be a smaller range of Vcoms observed across the regions **150**, and each of these Vcoms may be associated with an amount of flickering that the human eye cannot perceive. Furthermore, providing line-specific Vcoms may reduce or eliminate the occurrence of flicking caused by drifts in Vcom over time.

**[0067]** The specific embodiments described above have been shown by way of example, and it should be understood that these embodiments may be susceptible to various modifications and alternative forms. It should be further understood that the claims are not intended to be limited to the particular forms disclosed, but rather to cover all modifications, equivalents, and alternatives falling within the spirit and scope of this disclosure.

**[0068]** The techniques presented and claimed herein are referenced and applied to material objects and concrete examples of a practical nature that demonstrably improve the present technical field and, as such, are not abstract, intangible or purely theoretical. Further, if any claims appended to the end of this specification contain one or more elements designated as “means for [perform]ing [a function] . . . ” or “step for [perform]ing [a function] . . . ”, it is intended that such elements are to be interpreted under 35 U.S.C. 112(f). However, for any claims containing elements designated in any other manner, it is intended that such elements are not to be interpreted under 35 U.S.C. 112(f).

What is claimed is:

1. A system, comprising:  
processing circuitry configured to:  
determine a plurality of line-specific common voltage (Vcom) values for a plurality of common electrodes of an electronic display, wherein each of the plurality of line-specific Vcom values is associated with a line of pixels of a plurality of lines of pixels of the electronic display; and  
cause the plurality of line-specific Vcom values to be provided to the plurality of lines of pixels.
2. The system of claim 1, wherein the processing circuitry is configured to:  
determine a plurality of Vcom values, wherein each of the plurality of Vcom values is associated with a region of a plurality of regions of the electronic display; and  
determine the plurality of line-specific Vcom values based at least in part on the plurality of Vcom values.
3. The system of claim 2, wherein the processing circuitry is configured to determine a second plurality of Vcom